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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,531	03/31/2001	Mingte Chen	SBL0004US	7476
60975 7590 12/22/2008 CAMPBELL STEPHENSON LLP 11401 CENTURY OAKS TERRACE BLDG. H, SUITE 250 AUSTIN, TX 78758				
EXAMINER				
ZHEN, LI B				
ART UNIT		PAPER NUMBER		
2194				
MAIL DATE		DELIVERY MODE		
12/22/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/823,531

Applicant(s)

CHEN ET AL.

Examiner

LI B. ZHEN

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 13, 17-26, 28-76 and 78-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13, 17-26, 28-76 and 78-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/9/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 10, 13, 17 – 26, 28 – 76 and 78 – 101 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/9/2008 has been entered.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 – 10, 13, 17 – 22, 24 – 26, 28 – 42, 45 – 56, 58 – 64, 66 – 76 and 78 – 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No**

6,332,154 to Beck et al. [hereinafter Beck, previously cited] in view of U.S. Patent No. 7,092,509 to Mears et al. [hereinafter Mears] and further in view of U.S. Patent No. 2004/0031030 to Kidder et al. [hereinafter Kidder].

6. As to claim 1, Beck teaches the invention substantially as claimed including a method for communicating comprising:

obtaining an event communicated to a communication center [communication center 17; col. 7, lines 33 – 41] via an incoming communication channel of a plurality of communication channels [In step 95, an incoming transaction, such as a live call, an e-mail, etc., is received at the appropriate CTI switch (COST) or routing server (DNT) in a CINOS communication center such as center 17; col. 13, lines 45 – 60], wherein each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10], at least two communication channels of the communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52], and the event corresponds to a work item [Recorded events such as IVR voice requests; col. 11, lines 21 – 33] available via the incoming communication channel [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42; and Icons a-d are interactive pointers or links to the actual media interactions that they represent, col. 23, line 61 – col. 24, line 8];

providing a notification of the work item via a user interface [displays such as call-interrupt alerts, new media notifications, or other instructions required to be

communicated to an agent may appear as a pop-up window, or other form of graphic display; col. 58, lines 50 – 60];

receiving an activation of a work item object of the user interface wherein the work item object is associated with the work item [clicking on a icon with a pointer device, the actual e-mail may be accessed and viewed; col. 23, line 62 – col. 24, line 8], the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels [col. 25, lines 46 – 63] and the work item object is activated by an agent [answering COST calls, answering calls, answering e-mails, responding to other requests such as fax responses, voice mails, making marketing out-calls; col. 55, lines 57 – 62 and col. 53, line 60 – col. 54, line 3]. Beck does not specifically disclose identifying a command that is associated with the activation of the work item object, and the identifying the command comprises accessing a user interface object table.

However, Mears teaches receiving an activation of a work item object [virtual phone icon 238-2, web collaboration interface 238-3; col. 49, lines 19 – 33] of the user interface [agent toolbar 238; col. 49, lines 19 – 33], wherein the work item object is associated with the work item [open the web connection window, the agent can click the web collaboration icon 238-3; col. 57, lines 3 – 13], the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels and the work item object is activated by an agent [col. 57, lines 3 – 13 and col. 53, lines 30 – 51]; and identifying a command, wherein the command is associated with the activation of the work item object [col. 57, line 3 – col.

58, line 26], and the identifying the command comprises accessing a user interface object table [table 41; col. 57, lines 15 – 35].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Beck to incorporate the features of Mears. One of ordinary skill in the art would have been motivated to make the combination because this provides a contact center system capable of efficiently and effectively handling different types of media contacts [col. 3, lines 2 – 5 of Mears].

Although Beck teaches a communication center that communicates with a customer via multiple channels [an incoming transaction, such as a live call, an e-mail, etc., is received at the appropriate CTI switch (COST) or routing server (DNT) in a CINOS communication center such as center 17; col. 13, lines 45 – 60], Beck does not specifically disclose identifying a channel driver, wherein the channel driver comprises the command, and the identifying the channel driver comprises accessing a command table and causing the channel driver to issue the command from the communication center to an outgoing communication channel of the communication channels.

However, Kidder teaches identifying a channel driver [device drivers, use tables in the configuration database to derive the names of other configurable objects; paragraph 0432], wherein the channel driver comprises the command [paragraphs 0802 – 0804], and the identifying the channel driver comprises accessing a command table [paragraph 0489] and causing the channel driver to issue the command from the communication center to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the invention of Beck and Mears to incorporate the features of Kidder. One of ordinary skill in the art would have been motivated to make the combination because this provides a method and apparatus for facilitating hot upgrades of software components within a telecommunications network device [paragraph 0013 of Kidder].

7. As to claim 13, Beck as modified teaches a method for communicating comprising:

obtaining an event communicated to a communication center [communication center 17; col. 7, lines 33 – 41 of Beck] via an incoming communication channel of a plurality of communication channels [an incoming transaction, such as a live call, an e-mail, etc.; col. 13, lines 45 – 60 of Beck], wherein each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], and at least two of the communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52 of Beck];

providing a notification of the event via the user interface [displays such as call-interrupt alerts, new media notifications, or other instructions required to be communicated to an agent may appear as a pop-up window, or other form of graphic display; col. 58, lines 50 – 60 of Beck];

receiving an activation of a command object of the user interface [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck; col. 57, lines 3 – 13 and col. 49, lines 19 – 33

of Mears], wherein the activation of the command object [selection of interactions; col. 58, lines 27 – 42 of Beck and col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears] is received from one communication channel of the plurality of communication channels [Icons a-d are interactive pointers or links to the actual media interactions that they represent, col. 23, line 61 – col. 24, line 8 of Beck and col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears] and the command object is activated by an agent [col. 57, lines 3 – 13 of Mears];

identifying a command associated with the activation of the command object [col. 57, line 3 – col. 58, line 26 of Mears and col. 57, line 22 – col. 58, line 10 of Beck] wherein the identifying the command comprises accessing a user interface object table [col. 57, lines 15 – 35 of Mears];

identifying a channel driver comprising the command [col. 58, lines 27 – 42 of Beck], wherein the identifying the channel driver comprises accessing a command table [paragraph 0432 of Kidder]; and

causing the channel driver to issue the command from the communication center to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838 of Kidder].

8. As to claim 17, Beck as modified teaches a computer program product for presenting a user interface [agent's graphical user interface (GUI); col. 38, lines 41 – 52 of Beck] for communicating comprising:

an obtaining module to obtain an event communicated to a communication center [communication center 17; col. 7, lines 33 – 41 of Beck] via an incoming communication channel of a plurality of communication channels [col. 13, lines 45 – 60 of Beck], wherein each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], at least two of the communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52 of Beck], and the event corresponds to a work item [Recorded events such as IVR voice requests; col. 11, lines 21 – 33 of Beck];

a notification module to provide a notification of the work item [displays such as call-interrupt alerts, new media notifications, or other instructions required to be communicated to an agent; col. 58, lines 50 – 60 of Beck] via a user interface [agent toolbar 238; col. 49, lines 19 – 33 of Mears];

a work item object [col. 57, line 22 – col. 58, line 10 of Beck], wherein the work item object is associated with the work item [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears];

a receiving module to receive an activation of the work item object [col. 57, lines 22 – 28 of Beck], wherein the activation of the work item object is further associated with selecting one communication channel of the plurality of communication channels [col. 57, line 22 – col. 58, line 10 of Beck],

the work item object is activated by an agent [col. 57, lines 3 – 13 of Mears],

the activation of the work item object causes a channel driver comprising the command to be identified [routing-system interface module 411 provides interfacing capability to various CINOS routing systems 393; col. 58, lines 27 – 42 of Beck]; and

the channel driver issues the command from the communication center to an outgoing communication channel of the plurality of communication channels [paragraphs 0835 and 0838 of Kidder];

a first identifying module to [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck] to identify the command, wherein the command is associated with the activation of the work item object [col. 17, lines 40 – 52 of Beck and col. 57, line 3 – col. 58, line 26 of Mears], the first identifying module comprises a first accessing module for accessing a user interface object table [col. 57, lines 15 – 35 of Mears];

a second identifying module to identify the channel driver associated with the command [col. 62, line 63 – col. 63, line 5 and col. 48, lines 15 – 30; col. 58, lines 27 – 42 of Beck], wherein the second identifying module comprises a second accessing module for accessing a command table [paragraph 0432 and 0489 of Kidder]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

9. As to claim 19, Beck as modified teaches a computer program product [col. 38, lines 41 – 52 of Beck] for communicating comprising:

a notification object to provide a notification of an event [col. 58, lines 50 – 60 of Beck] communicated to a communication center [col. 7, lines 33 – 41 of Beck] via an

incoming communication channel of a plurality of communication channels [col. 13, lines 45 – 60 of Beck], wherein each communication channel of the communication channels has a media type [col. 23, line 61 – col. 24, line 8 of Beck], and at least two of the communication channels have different media types [col. 17, lines 40 – 52 of Beck]; and

a command object wherein activation of the command object is associated with a command [col. 58, lines 27 – 43 and col. 36, lines 37 – 55 of Beck], the activation of the command object [selection of interactions; col. 58, lines 27 – 42 of Beck] is received from one communication channel of the plurality of communication channels [col. 57, line 22 – col. 58, line 10 of Beck], the activation of the command object causes a channel driver comprising the command to be identified [col. 58, lines 27 – 42 of Beck], the command object is activated by an agent [col. 57, lines 3 – 13 of Mears], and the channel driver issues the command from the communication center to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838 of Kidder];

a first identifying module to identify the command associated with the activation of command object [col. 58, lines 27 – 43 of Beck and col. 57, line 3 – col. 58, line 26 of Mears], and the first identifying module comprises a first accessing module for accessing a user interface object table [col. 57, lines 15 – 35 of Mears];

a second identifying module to identify the channel driver associated with the command [col. 62, line 63 – col. 63, line 5 and col. 48, lines 15 – 30 of Beck], wherein the second identifying module comprises a second accessing module for accessing a command table [paragraph 0432 and 0489 of Kidder]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

10. As to claim 21, Beck as modified teaches a computer system [col. 7, lines 32 – 40 of Beck] comprising:

a processor [processor 61; col. 8, lines 21 – 36 of Beck];

a display [computer screen display; col. 27, lines 32 – 49 of Beck], coupled to said processor;

computer readable medium coupled to said processor [data storage; col. 45, lines 16 – 35 of Beck]; and

computer code, encoded in said computer readable medium, configured to cause said processor to communicate using at least one communication channel of a plurality of communication channels [col. 13, lines 45 – 60 of Beck], wherein each communication channel of the communication channels has a media type [col. 23, line 61 – col. 24, line 8 of Beck], and at least two of the communication channels have different media types [col. 57, line 22 – col. 58, line 10 of Beck], by virtue of being configured to cause said processor to:

obtain an event communicated via an incoming communication channel of the communication channels [col. 13, lines 45 – 60 of Beck], wherein the event corresponds to a work item available via the incoming communication channel [Recorded events such as IVR voice requests; col. 11, lines 21 – 33 of Beck];

provide a notification of the work item via a user interface presented on the display [displays such as call-interrupt alerts, new media notifications, or other instructions required to be communicated to an agent may appear as a pop-up window, or other form of graphic display; col. 58, lines 50 – 60 of Beck];

receive an activation of a work item object of the user interface [col. 57, lines 27 – 40 of Beck and col. 49, lines 19 – 33 of Mears], wherein the work item object is associated with the work item [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears],

the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels [col. 57, line 22 – col. 58, line 10 of Beck], the work time object is activated by an agent [col. 57, lines 3 – 13 of Mears],

the activation of the work item object [Push module 401 is adapted to accept input instruction; col. 57, lines 27 – 40 of Beck] causes the channel driver comprising a command associated with the activation of the work item object to be identified [col. 58, lines 27 – 42 of Beck] and the channel driver issues the command associated with the activation of the work item object to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838 of Kidder];

identify the command associated with the activation of the work item object [col. 17, lines 40 – 52 of Beck];

wherein the computer code configured to cause the processor to identify the command comprises computer code to cause the processor to access a user interface object table [col. 57, lines 15 – 35 of Mears], and

identify the channel-driver associated with the command [col. 62, line 63 – col. 63, line 5 and col. 48, lines 15 – 30; col. 58, lines 27 – 42 of Beck], wherein the computer code configured to cause the processor to identify the channel driver comprises computer code to cause the processor to access a command table [paragraph 0432 and 0489 of Kidder].

11. As to claim 22, Beck as modified teaches a computer program product comprising:

a database [a CINOS database such as DB 75, FIG. 1; col. 16, line 65 – col. 17, line 15 of Beck] comprising:

a communication channel table comprising information regarding a communication channel [MIS 189; col. 24, lines 31 – 42 of Beck];

a user interface object table [col. 57, lines 15 – 35 of Mears] comprising information regarding a user interface object [col. 57, lines 22 – 28 of Beck] of a user interface [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears] used to communicate via the communication channel [col. 57, line 22 – col. 58, line 10 of Beck], wherein the information regarding the user interface object comprises a command associated with activation of the user interface object [col. 57, lines 22 – 28 of Beck], wherein the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck] is received from one communication channel of the plurality of communication channels [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42 of Beck];

a channel driver table comprising information regarding a channel driver that controls the operation of the communication channel [paragraphs 0835 and 0838 of Kidder] and is operable to provide an event from the communication channel [incoming events are analyzed and processed with regards to queuing, recording, storing, etc. CINOS decides the disposition paths of each event; col. 11, lines 21 – 32 of Beck] and to issue the command to the communication channel [paragraphs 0835 and 0838 of Kidder];

an event table comprising information regarding the event [incoming events are analyzed and processed with regards to queuing, recording, storing, etc. CINOS decides the disposition paths of each event; col. 11, lines 21 – 32 of Beck]; and

a command table comprising information regarding the command [col. 58, lines 27 – 42 of Beck and paragraph 0432 and 0489 of Kidder];

instructions to access the communication channel table, the user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], the channel driver table [col. 62, line 63 – col. 63, line 5 of Beck and paragraph 0432 of Kidder], the event table [col. 11, lines 21 – 32 of Beck], and the command table [col. 48, lines 15 – 30 of Beck] to communicate via the communication channel [col. 42, lines 21 – 36 and col. 41, line 55 – col. 42, line 2 of Beck]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

12. As to claim 39, Beck as modified teaches a computer program product for presenting a user interface [agent's graphical user interface (GUI); col. 38, lines 41 – 52 of Beck] for communicating comprising:

a user interface object [col. 57, line 22 – col. 58, line 10 and col. 13, lines 45 – 60 of Beck and col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears];

a receiving module configured to receive an activation of the user interface object [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck], wherein each communication channel of a plurality of communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], and at least two communication channels of the communication channels have different media types [col. 57, line 22 – col. 58, line 10 of Beck];

the activation of the user interface object [col. 49, lines 19 – 33 of Mears] is received at a communication center [col. 57, lines 3 – 13 and col. 49, lines 19 – 33 of Mears] from one communication channel of the plurality of communication channels [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42 of Beck],

the user interface object is activated by an agent [col. 57, lines 3 – 13 of Mears];

the activation of the user interface object is associated with a command [col. 57, line 22 – col. 58, line 10 of Beck],

the activation of the user interface object causes a channel driver [paragraphs 0835 and 0838 of Kidder] associated with the command to be identified [col. 58, lines 27 – 43 of Beck];

an accessing module configured to access a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck] comprising information regarding the user interface object [col. 57, line 22 – col. 58, line 10 of Beck], wherein the information regarding the user interface object comprises the command associated with the activation of the user interface object [col. 58, lines 27 – 43 of Beck];

a channel driver module configured to cause the channel driver [paragraph 0432 and 0489 of Kidder] to issue the command from the communication center to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838 of Kidder]; and

a physical computer readable medium storing the modules of the computer program product [col. 20, lines 35 – 46 of Beck].

13. As to claim 46, Beck as modified teaches a computer program product comprising a database [a Cynos database such as DB 75, FIG. 1; col. 16, line 65 – col. 17, line 15 of Beck] comprising:

a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and col. 57, lines 15 – 35 of Mears] comprising information regarding a user interface object of a user interface used [col. 49, lines 19 – 33 of Mears] to communicate with a communication channel [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], wherein the information regarding the user interface object comprises a command associated with activation of the user interface object [col. 57, lines 3 – 13 of Mears]; and

the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck] is received at a communication center [col. 57, lines 3 – 13 of Mears] from one communication channel of a plurality of communication channels [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42 of Beck];

instructions to access the user interface object table [col. 57, lines 15 – 35 of Mears] when the user interface is to display information related to a communication via the communication channel [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck];

instructions to cause a channel driver [paragraph 0432 and 0489 of Kidder] to issue the command from the communication center to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838 of Kidder]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

14. As to claim 54, Beck as modified teaches a computer program product comprising a database [a Cynos database such as DB 75, FIG. 1; col. 16, line 65 – col. 17, line 15 of Beck] comprising:

an object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], wherein the object table comprises information regarding a user interface object [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears] of a user interface [col. 49, lines 19 – 33 of Mears] used to communicate via a communication channel [col. 57, line

22 – col. 58, line 10 of Beck], wherein the information regarding the user interface object comprises a command associated with activation of the user interface object [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck and col. 57, lines 3 – 13 of Mears]; and

the activation of the user interface object [col. 57, lines 3 – 13 of Mears] is received at a communication center [col. 7, lines 33 – 41 of Beck] from one communication channel of the plurality of communication channels [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42 of Beck]; and

a communication channel table wherein the communication channel table comprises information regarding the communication channel associated with the user interface object [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and paragraph 0432 and 0489 of Kidder];

first instructions configured to access the object table and the communication channel table to communicate via the communication channel [col. 42, lines 21 – 36 and col. 41, line 55 – col. 42, line 2 of Beck];

second instructions configured to cause the channel driver [paragraph 0432 and 0489 of Kidder] to issue the command from the communication center to an outgoing communication channel of the communication channels [paragraphs 0835 and 0838 of Kidder]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

15. As to claim 59, Beck as modified teaches a computer program product for communicating comprising:

a user interface [agent's graphical user interface (GUI); col. 38, lines 41 – 52 of Beck and col. 49, lines 19 – 33 of Mears] comprising at least one user interface object configured to be activated [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck] by an agent [col. 57, lines 3 – 13 of Mears], wherein activation of one of the at least one user interface object is associated with issuing a command to one communication channel [interface command module 341; col. 48, lines 15 – 30 of Beck] of a plurality of communication channels [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck and col. 57, lines 3 – 13 of Mears] is received at a communication center [col. 7, lines 33 – 41 of Beck] from the one communication channel of the plurality of communication channels [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42 of Beck], each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], at least two communication channels of the communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52 of Beck], and the activation causes a channel driver comprising the command to be identified [col. 57, lines 22 – 28 of Beck];

an accessing module configured to access a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and col. 57, lines 15 – 35 of Mears] comprising information regarding the user interface object [col. 58, lines 27 – 43

of Beck], wherein the information regarding the user interface object comprises a respective command associated with the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck];

a channel driver module configured to cause the channel driver to issue the command from the communication center to an outgoing communication channel of the communication channels [paragraph 0432 and 0489; paragraphs 0835 and 0838 of Kidder]; and

a physical computer readable medium storing the computer program product [col. 20, lines 35 – 46 of Beck].

16. As to claim 67, Beck as modified teaches an apparatus for communicating comprising:

obtaining means for obtaining an event communicated to a communication center [col. 7, lines 33 – 41 of Beck] via an incoming communication channel of a plurality of communication channels [communication events such as e-mail, file transfers and the like, arrive at a routing node 21; col. 8, lines 1 – 10 and col. 13, lines 45 – 60 of Beck], wherein each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], at least two communication channels of the communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52 of Beck], and

the event corresponds to a work item [Recorded events such as IVR voice requests; col. 11, lines 21 – 33 of Beck] available via the incoming communication channel [col. 23, line 61 – col. 24, line 8 of Beck];

notifying means for providing a notification of the work item via a user interface [col. 58, lines 50 – 60 of Beck];

receiving means for receiving an activation of a work item object of the user interface [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck], the work item object being associated with the work item [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears], wherein

the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels [col. 57, line 22 – col. 58, line 10 of Beck],

the work item object is activated by an agent [col. 57, lines 3 – 13 of Mears],

the activation of the work item object [selection of interactions; col. 58, lines 27 – 42 of Beck] causes a channel driver comprising a command associated with the activation of the work item object to be identified [col. 62, line 63 – col. 63, line 5 of Beck], and

the channel driver issues the command [paragraphs 0835 and 0838 of Kidder] associated with the activation of the work item object from the communication center [col. 42, lines 21 – 36 and col. 41, line 55 – col. 42, line 2 of Beck] to an outgoing communication channel of the communication channels [interface command module 341; col. 48, lines 15 – 30 of Beck]; and

accessing means for accessing a user interface object table [col. 57, lines 15 – 35 of Mears] comprising information regarding the work item object [col. 58, lines 27 – 43 of Beck], wherein the information regarding the work item object comprises the command associated with the activation of the work item object [col. 62, line 63 – col. 63, line 5 and col. 48, lines 15 – 30 of Beck and paragraph 0432 and 0489 of Kidder].

17. As to claim 84, Beck as modified teaches an apparatus comprising:

obtaining means for obtaining an event communicated to a communication center [col. 7, lines 33 – 41 of Beck] via an incoming communication channel of a plurality of communication channels [col. 8, lines 1 – 10 of Beck], wherein each communication channel of the communication channels has a media type [col. 23, line 61 – col. 24, line 8 of Beck], and at least two of the communication channels have different media types [col. 17, lines 40 – 52 of Beck];

notifying means for providing a notification of the event via the user interface [col. 58, lines 50 – 60 of Beck];

receiving means for receiving an activation of a command object of the user interface [col. 57, lines 3 – 13 of Mears], the command object being associated with a command related to the event [col. 58, lines 27 – 42 of Beck; col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears], wherein the activation of the command object is received from one communication channel of the plurality of communication channels [col. 23, line 61 – col. 24, line 8 of Beck],

the command object is activated by an agent [col. 57, lines 3 – 13 of Mears],

the receiving the activation causes a channel driver comprising the command to be identified [col. 58, lines 27 – 42 of Beck], and

the channel driver issues the command [paragraphs 0835 and 0838 of Kidder] from the communication center to an outgoing communication channel of the communication channels [col. 48, lines 15 – 30 of Beck]; and

accessing means for accessing a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and col. 57, lines 15 – 35 of Mears] comprising information regarding the command object [col. 57, line 22 – col. 58, line 10 of Beck], wherein

the information regarding the command object comprises the command associated with the activation of the command object [col. 42, lines 21 – 36 and col. 41, line 55 – col. 42, line 2 of Beck and paragraph 0432 and 0489 of Kidder].

18. As to claim 85, Beck as modified teaches a computer program product comprising:

obtaining instructions to obtain an event communicated to a communication center [col. 7, lines 33 – 41 of Beck] via an incoming communication channel of a plurality of communication channels [col. 8, lines 1 – 10 of Beck], wherein each communication channel of the communication channels has a media type [col. 23, line 61 – col. 24, line 8 and col. 13, lines 45 – 60 of Beck of Beck], at least two communication channels of the communication channels have different media types [col. 17, lines 40 – 52 of Beck], and

the event corresponds to a work item available via the incoming communication channel [col. 11, lines 21 – 33 of Beck];

notifying instructions to provide a notification of the work item via a user interface [col. 58, lines 50 – 60 of Beck];

receiving instructions to receive an activation of a work item object of the user interface [col. 57, lines 3 – 13 of Mears], the work item object being associated with the work item [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears], wherein the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels [col. 23, line 61 – col. 24, line 8 of Beck],

the work item object is activated by an agent [col. 57, lines 3 – 13 of Mears],
the activation of the work item object causes a channel driver comprising a command associated with the activation to be identified [col. 57, line 22 – col. 58, line 10 of Beck], and the channel driver issues the command [paragraphs 0835 and 0838 of Kidder] associated with the activation of the work item object from the communication center to an outgoing communication channel of the communication channels [col. 48, lines 15 – 30 of Beck]; and

accessing instructions to access a user interface object table comprising information regarding the work item object [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and col. 57, lines 15 – 35 of Mears], wherein the information regarding the work item object comprises the command associated with the activation of

the work item object [col. 58, lines 27 – 43 of Beck and paragraph 0432 and 0489 of Kidder]; and

a computer-readable storage configured to store the computer program product [data storage; col. 45, lines 16 – 35 of Beck].

19. As to claim 2, Beck teaches the incoming communication channel and the outgoing communication channel are the same [selection of a media type, the client may initiate a call back in the media selected to a client apparatus compatible with the media selected; col. 5, lines 38 – 53].

20. As to claim 3, Beck teaches performing the command by the outgoing communication channel [col. 48, lines 15 – 30].

21. As to claim 4, Beck teaches providing the notification in real time with the obtaining the event [in real time as the interaction takes place; col. 25, line 27 – 34].

22. As to claim 5, Beck teaches invoking a notification module of the user interface [notification interface module 317; col. 43, lines 22 – 35].

23. As to claim 6, Beck teaches the activation of the work item object is associated with an accept work item command [Push module 401 is adapted to accept input instruction; col. 57, lines 27 – 40].

24. As to claim 7, Beck teaches the activation of the work item object is associated with a release work item command [Push module 401 is adapted to accept input instruction; col. 57, lines 27 – 40].

25. As to claim 8, Beck teaches sending the command to the command channel driver [col. 48, lines 15 – 30].

26. As to claim 9, Beck teaches obtaining the command from the user interface by a communication server [servers MIS 79 and Server 77; col. 54, lines 31 – 50], wherein the communication server sends the command to the channel driver [In step 281 commands are sent to the IOM; col. 33, lines 23 – 40].

27. As to claim 10, Beck teaches sending the command to the channel driver for the incoming communication channel [interface command module 341; col. 48, lines 15 – 30] if the incoming communication channel and the outgoing communication channel are the same [selection of a media type, the client may initiate a call back in the media selected to a client apparatus compatible with the media selected; col. 5, lines 38 – 53].

28. As to claim 18, this is rejected for the same reasons as claim 2 above.

29. As to claim 20, this is rejected for the same reasons as claim 2 above.

30. As to claim 24, Beck teaches the event table provides access to an event ID of the event [identifier is assigned to an entity and to all the communication events; col. 24, lines 8 – 18]; an event name of the event [text version of the event; col. 10, lines 36 – 50]; and a channel driver ID of the channel driver [col. 41, lines 30 – 47].

31. As to claim 25, Beck teaches the command table provides access to: a command ID of the command [input parameters; col. 51, lines 12 – 29]; a command name of the command [col. 47, lines 3 – 24]; and a channel driver ID of the channel driver [col. 41, lines 30 – 47].

32. As to claim 26, Beck teaches the channel driver table comprises: a channel driver ID of the channel driver [col. 41, lines 30 – 47]; a media type of the communication channel [media support module 445 is provided and adapted to contain required media drivers for executing different types of media presentations offered; col. 62, line 63 – col. 63, line 5]; a file name of the channel driver and a media string that allows a media service associated with the channel driver to be invoked [Module 445 contains an appropriate driver for each type of offered media as required. In one embodiment, such drivers may also be downloaded to a client's browser through desktop interface module 443; col. 62, line 63 – col. 63, line 5].

33. As to claim 28, Beck teaches the activation of the work item object is associated with selecting from a list of a plurality of work item [agent to subscribe to workload queues; col. 56, lines 1 – 20 and col. 57, lines 22 – 28].

34. As to claim 29, Beck teaches the activation of the work item object is associated with one of a suspend work item command [Interrupt module 407; col. 58, lines 5 – 20] and a retrieve work item command [retrieved by agents after receiving notification; col. 11, lines 21 – 33].

35. As to claim 30, Beck teaches the activation of the work item object is associated with an initiate work item command [col. 11, lines 21 – 33].

36. As to claim 31, Beck teaches the activation of the work item object is associated with one of a blind transfer of work item command [file share; col. 8, lines 1 – 10], a consultative transfer of work item command [file transfers; col. 8, lines 1 – 10], and a conference command [multi-agent conference; col. 39, lines 45 – 62].

37. As to claim 32, Beck teaches the user interface comprises a plurality of user interfaces [col. 57, lines 22 – 28], wherein each user interface of the user interfaces is associated with an agent of a plurality of agents [pool of agents services; col. 12, lines 37 – 55]; and further comprising: determining one agent of the agents to be notified of the event [agent to subscribe to workload queues; col. 56, lines 1 – 20 and col. 57, lines

22 – 28], wherein the providing the notification comprises providing the notification to the one agent via the user interface associated with the one agent [notification interface module 317; col. 43, lines 22 – 35].

38. As to claim 33, Beck teaches determining the command to be issued from a context of the work item object when the work item object is activated [Workflow layer 85 comprises 3 basic function categories; col. 13, lines 10 – 22].

39. As to claim 34, Beck teaches a causing module to cause the command to be issued to the outgoing communication channel [col. 48, lines 15 – 30].

40. As to claim 35, Beck teaches an assignment module to determine an assignment of an agent to the work item [col. 58, lines 20 – 28].

41. As to claim 36, Beck teaches a channel driver table comprising information about a plurality of channel drivers [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

42. As to claim 37, Beck teaches a communication channel table comprising information regarding a plurality of communication channels [MIS 189; col. 24, lines 31 – 42].

43. As to claim 38, Beck teaches a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] comprising information regarding a user interface object [A customer service section 137 contains interactive options presented to existing clients needing service; col. 16, lines 15 - 24] of a user interface [Window 133; col. 16, lines 15 - 24] that is operable to communicate with the communication channel [col. 57, line 22 – col. 58, line 10].

44. As to claim 40, Beck teaches an event handling module configured to handle an event from an incoming communication channel of the communication channels [event handler adapted to identify and organize such dialogs so that they may be associated along the proper thread or threads; col. 40, lines 10 – 21].

45. As to claim 41, Beck teaches a notifying module configured to provide a notification of the event [notification interface module 317; col. 43, lines 22 – 35].

46. As to claim 42, Beck teaches a responding module configured to perform an event response to the event [incoming events are analyzed and processed with regards to queuing, recording, storing, etc. CINOS decides the disposition paths of each event; col. 11, lines 21 – 32].

47. As to claim 45, Beck teaches an assigning module configured to assign an agent to receive a notification of an event [interaction-sorter module prepares a list for each

assigned agent; col. 52, lines 8 – 27]; and a notifying module configured to provide the notification to the agent [notification interface module 317; col. 43, lines 22 – 35].

48. As to claim 47, Beck teaches a communication channel table comprising information regarding the communication channel [MIS 189; col. 24, lines 31 – 42].

49. As to claim 48, Beck teaches the communication channel table comprises information about a plurality of communication channels [MIS 189; col. 24, lines 31 – 42].

50. As to claim 49, Beck teaches a channel driver table comprising information about a plurality of channel drivers, wherein each channel driver of the channel drivers controls the operation of one communication channel of the communication channels [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

51. As to claim 50, Beck teaches a channel driver table comprising information about a channel driver that controls the operation of the communication channel [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

52. As to claim 51, Beck teaches a command table comprising information regarding a command sent to the communication channel [interface command module 341; col. 48, lines 15 – 30].

53. As to claim 52, Beck teaches an event table comprising information regarding an event originating in response to a communication received from the communication channel [incoming events are analyzed and processed with regards to queuing, recording, storing, etc. CINOS decides the disposition paths of each event; col. 11, lines 21 – 32].

54. As to claim 53, Beck teaches an event response table comprising information regarding an event response to be performed in response to the event [routing and routing notification events, any media may be routed to an appropriate agent based on skill, or any other rule-based routing method; col. 11, lines 32 – 39].

55. As to claim 55, Beck teaches the object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] further comprises information regarding an action to be performed when the user interface object is activated [col. 58, lines 27 – 42].

56. As to claim 56, Beck teaches the action comprises issuing a command to the communication channel [interface command module 341; col. 48, lines 15 – 30].

57. As to claim 58, Beck teaches the object table further comprises a notification object [notification interface module 317; col. 43, lines 22 – 35].

58. As to claim 60, Beck teaches the user interface is configured to communicate with a communication server [servers MIS 79 and Server 77; col. 54, lines 31 – 50], and wherein the communication server causes the command to be issued to the one communication channel [In step 281 commands are sent to the IOM; col. 33, lines 23 – 40].

59. As to claim 61, Beck teaches the communication server further receives an indication of activation of the user interface object [Activation in this sense is defined as activation to receive from or communicate with a specific requesting system; col. 33, lines 15 – 25].

60. As to claim 62, Beck teaches a channel driver is communicatively coupled to the one communication channel to issue the command [interface command module 341; col. 48, lines 15 – 30].

61. As to claim 63, Beck teaches the channel driver is one of a plurality of channel drivers, wherein each channel driver of the channel drivers is associated with an associated communication channel of the plurality of communication channels [Module

445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

62. As to claim 64, Beck teaches a database comprising a command table regarding a command [col. 48, lines 15 – 30] and a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] comprising information regarding the user interface object [A customer service section 137 contains interactive options presented to existing clients needing service; col. 16, lines 15 - 24] and the command to be issued upon activation of the user interface object [col. 57, lines 22 – 28].

63. As to claim 66, Beck teaches the command table [col. 48, lines 15 – 30] and the user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] are accessed to cause the channel driver to issue the command [col. 48, lines 15 – 30].

64. As to claims 68 – 76, these are apparatus claims that correspond to method claims 2 – 10; note the rejections to method claims 2 – 10 above, which also meet these apparatus claims.

65. As to claims 78 – 83, these are apparatus claims that correspond to method claims 28 – 33; note the rejections to method claims 28 – 33 above, which also meet these apparatus claims.

66. As to claims 86 – 94, these are product claims that correspond to method claims 2 – 10; note the rejections to claims 2 – 10 above, which also meet these product claims.

67. As to claim 95, Beck teaches the activation of the command object is associated with selecting one communication channel of the plurality of communication channels [col. 58, lines 20 – 28].

68. As to claims 96 – 101, these are rejected for the same reasons as claims 28 – 33 above.

69. **Claims 23, 43, 44, 57 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck, Mears and Kidder further in view of U.S. Patent No. 6,587,556 to Judkins et al. [hereinafter Judkins, previously cited].**

70. As to claim 23, Beck teaches the communication channel table provides access to: a channel ID of the communication channel [parameters which may include phone numbers e-mail addresses, IP addresses; col. 41, lines 30 – 47]; media type of the communication channel [media type; col. 9, line 58 – col. 10, line 10], but does not teach a configuration ID of a configuration to which the communication channel belongs.

However, Judkins teaches a method of configuring the scripting of a call center including an interactive voice response server and automatic call distributor server [col.

2, lines 20 – 39], a plurality of communication channels [actions such as e-mail, pager, etc.; col. 40, lines 25 – 67], and a configuration ID of a configuration to which the communication channel belongs [col. 25, lines 17 – 33].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combination of Beck, Mears and Kidder to include the features of a configuration ID of a configuration to which the communication channel belongs because this allows the user to control and configure all aspects of the call center system and monitor server activity [col. 14, lines 5 – 14 of Judkins] and provides a user the ability to configure the system setup and parameters and monitor system performance [col. 14, lines 14 – 25 of Judkins].

71. As to claim 43, Beck as modified does not teaches a status object, a status updating module to update a status of an agent using the user interface to one of ready and not ready when the status object is activated.

However, Judkins teaches Judkins teaches a method of configuring the scripting of a call center including an interactive voice response server and automatic call distributor server [col. 2, lines 20 – 39], a plurality of communication channels [actions such as e-mail, pager, etc.; col. 40, lines 25 – 67], a status object [All agents are listed alphabetically on this screen along with their status; col. 21, line 65 – col. 66, line 13], and a status updating module configured to update a status of an agent using the user interface to one of ready and not ready when the status object is activated [an agent is

no longer in use, the user can highlight the agent and click the Disable This Agent button 462 (FIG. 38) such that an agent can be disabled; col. 22, lines 51 – 60].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combination of Beck, Mears and Kidder to include the features of a status object and a status updating module to update a status of an agent because this allows work to be routed to the longest available agent [col. 13, lines 19 – 29 of Judkins] and provides requests to be rerouted to a site with available agents [col. 13, lines 52 – 64 of Judkins].

72. As to claim 44, Beck as modified teaches a status changing module configured to change a status of an agent using the user interface to one of ready and not ready [an agent is no longer in use, the user can highlight the agent and click the Disable This Agent button 462 (FIG. 38) such that an agent can be disabled; col. 22, lines 51 – 60 of Judkins]. As to the motivation for combining Beck and Judkins, see the rejection to claim 43 above.

73. As to claim 57, Beck as modified teaches the action comprises setting an agent status to one of ready and not ready [an agent is no longer in use, the user can highlight the agent and click the Disable This Agent button 462 (FIG. 38) such that an agent can be disabled; col. 22, lines 51 – 60 of Judkins]. As to the motivation for combining Beck and Judkins, see the rejection to claim 43 above.

74. As to claim 65, Beck as modified teaches a configuration table comprising information regarding a configuration for a user of the user interface [logical devices table (FIG. 7) defines logical names for devices configured in the system device table; col. 10, lines 30 – 40 of Judkins], wherein the configuration determines whether the command is available to the user [col. 14, lines 25 – 38 of Judkins].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combination of Beck, Mears and Kidder to include the features of a configuration table comprising information regarding a configuration for a user of the user interface because this allows the user to control and configure all aspects of the call center system and monitor server activity [col. 14, lines 5 – 14 of Judkins] and provides a user the ability to configure the system setup and parameters and monitor system performance [col. 14, lines 14 – 25 of Judkins].

CONTACT INFORMATION

75. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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